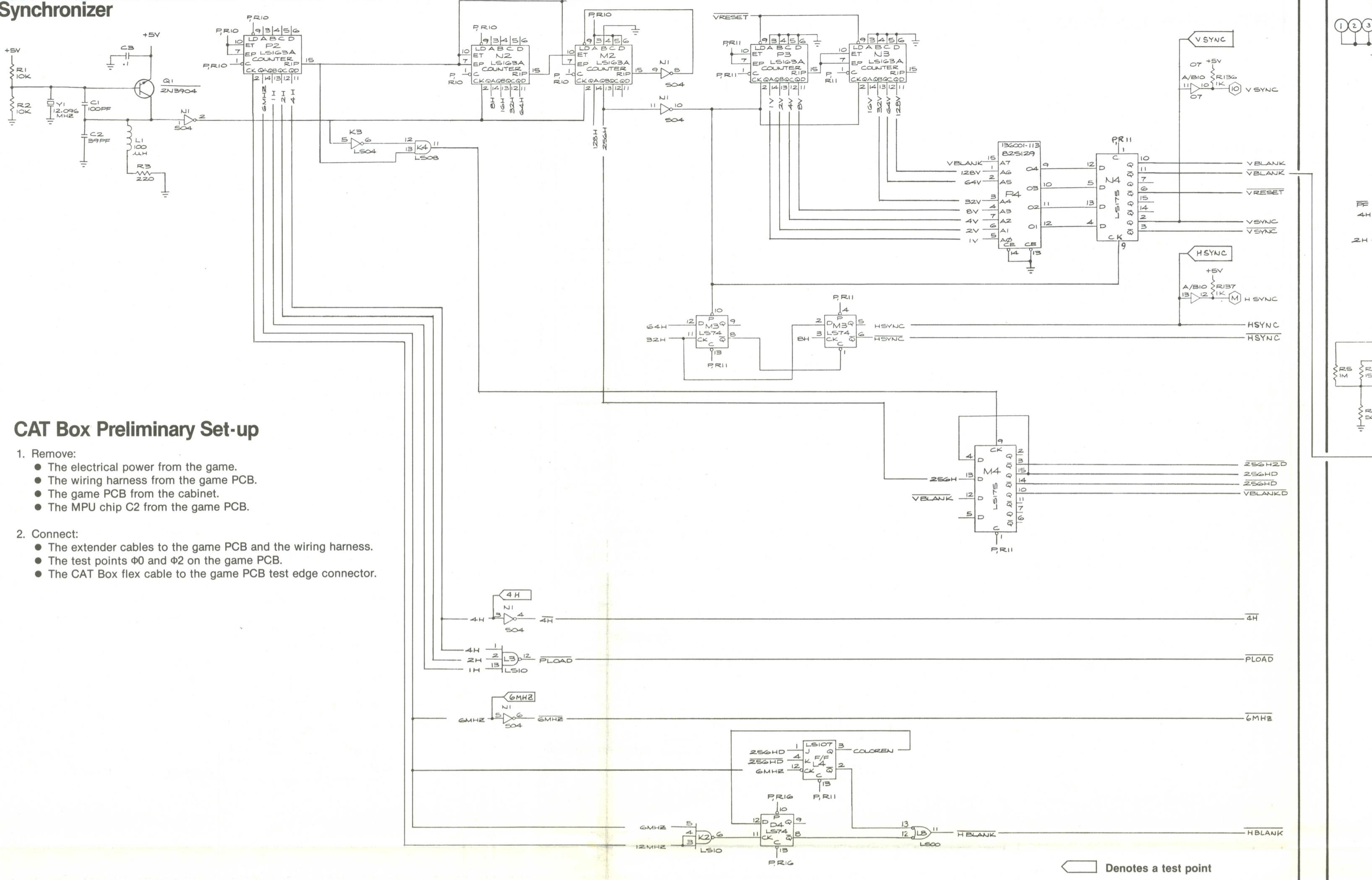


Synchronizer



Diagnostic Tests

Instruction

- Hold the slam switch closed, while setting the self-test switch to the on position.
- Activate any of the coin switches on the coin door.
- Set self-test switch to the off position.

Use of Test

The monitor displays the color hue adjustment pattern of 16 rectangles. Do not attempt any color hue or brightness adjustments unless you are a qualified color TV technician!

| | | | |
|-------------------|------------|------------|-------------|
| Pale Yellow-Green | Orange | White | Deep Yellow |
| Light Green | Dark Green | Light Blue | Lime Green |
| Deep Rose | Red | Purple | Red |
| Navy Blue | Black | Royal Blue | Black |

A convergence pattern appears with a grid of white dots on a black screen. Do not attempt any convergence adjustments unless you are a qualified color TV technician!

Check attract-mode display and readjust brightness if necessary.

Sheet 1, Side B

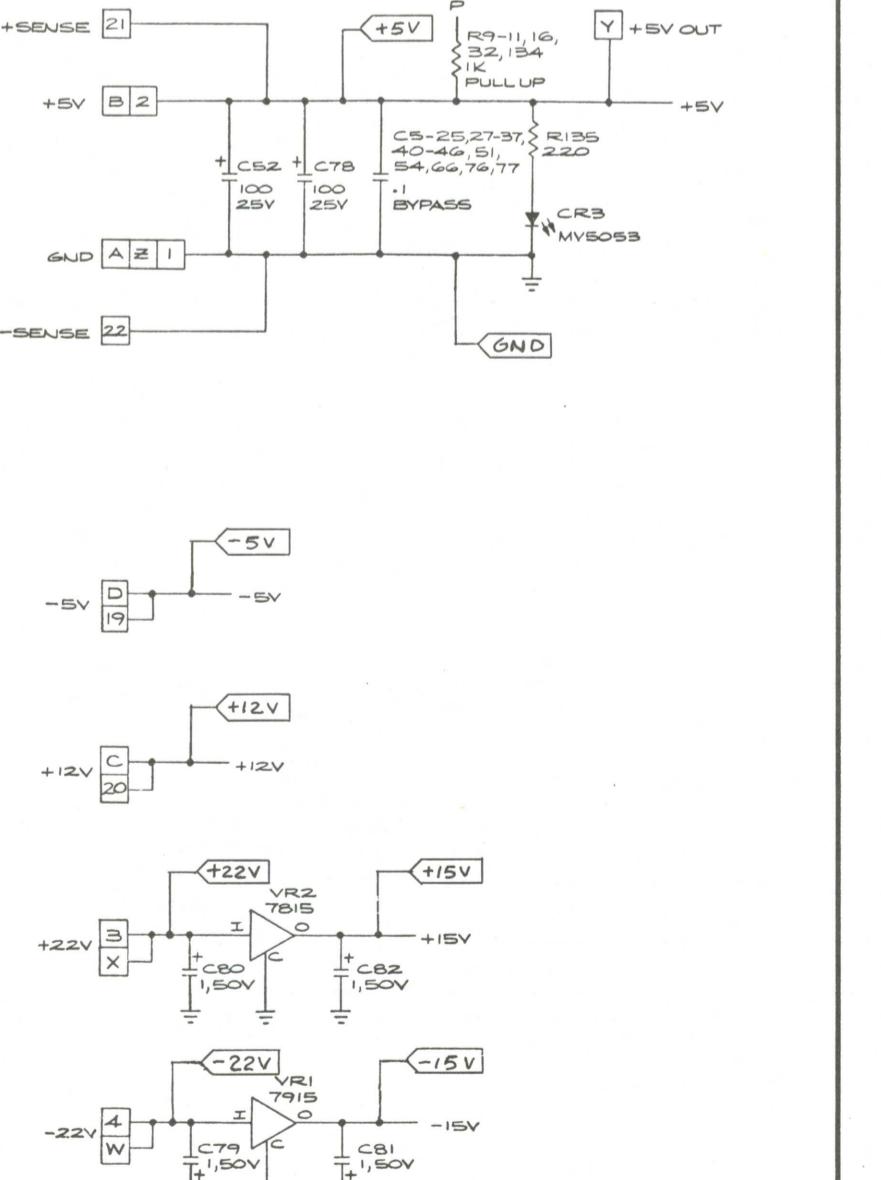


Centipede™

Synchronizer
CAT Box Preliminary Set-Up
Power Input
Microprocessor
Address Decoder
RAM
ROM
Memory Map
Section of 037241-01 B

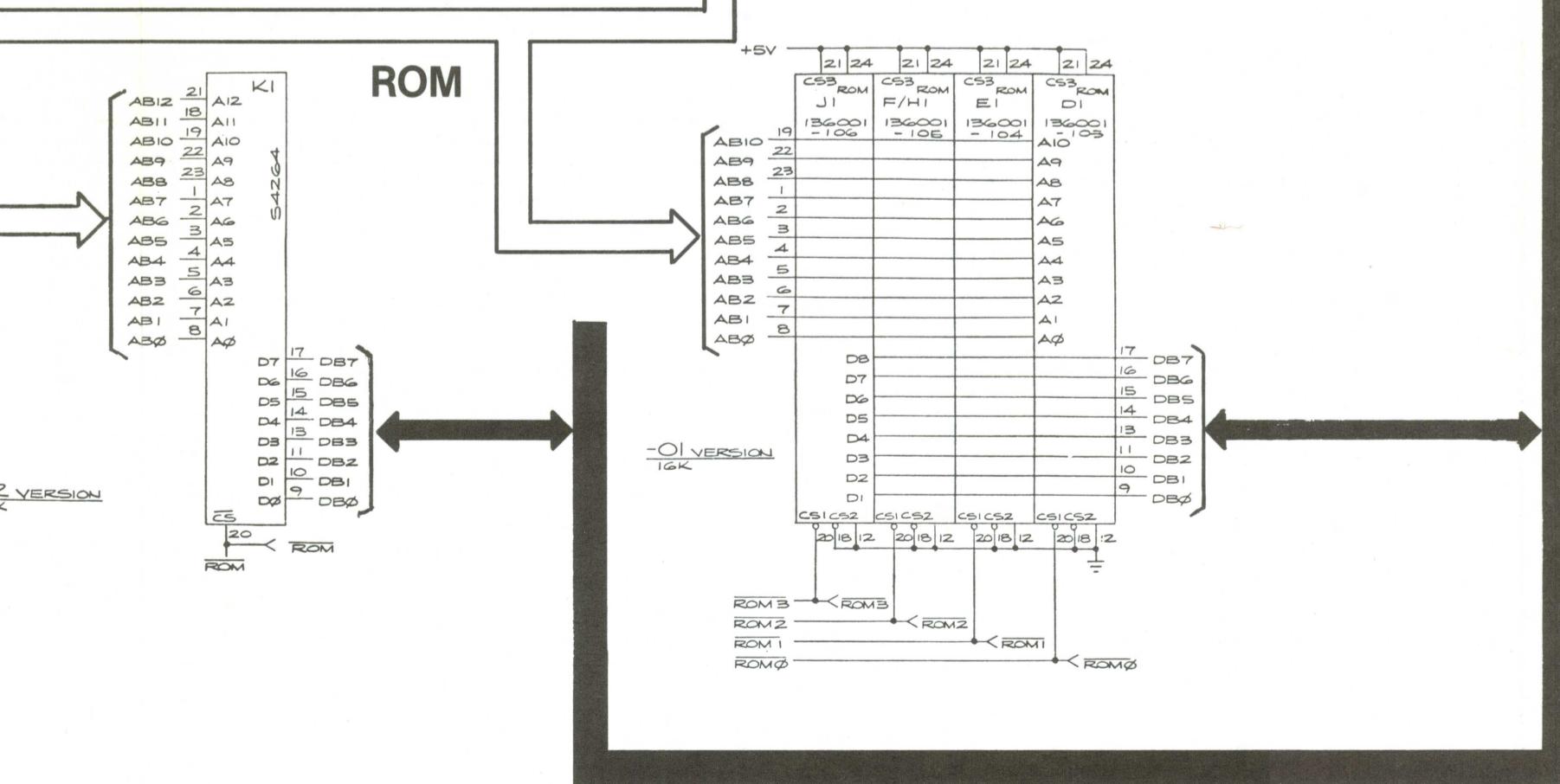
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Power Input

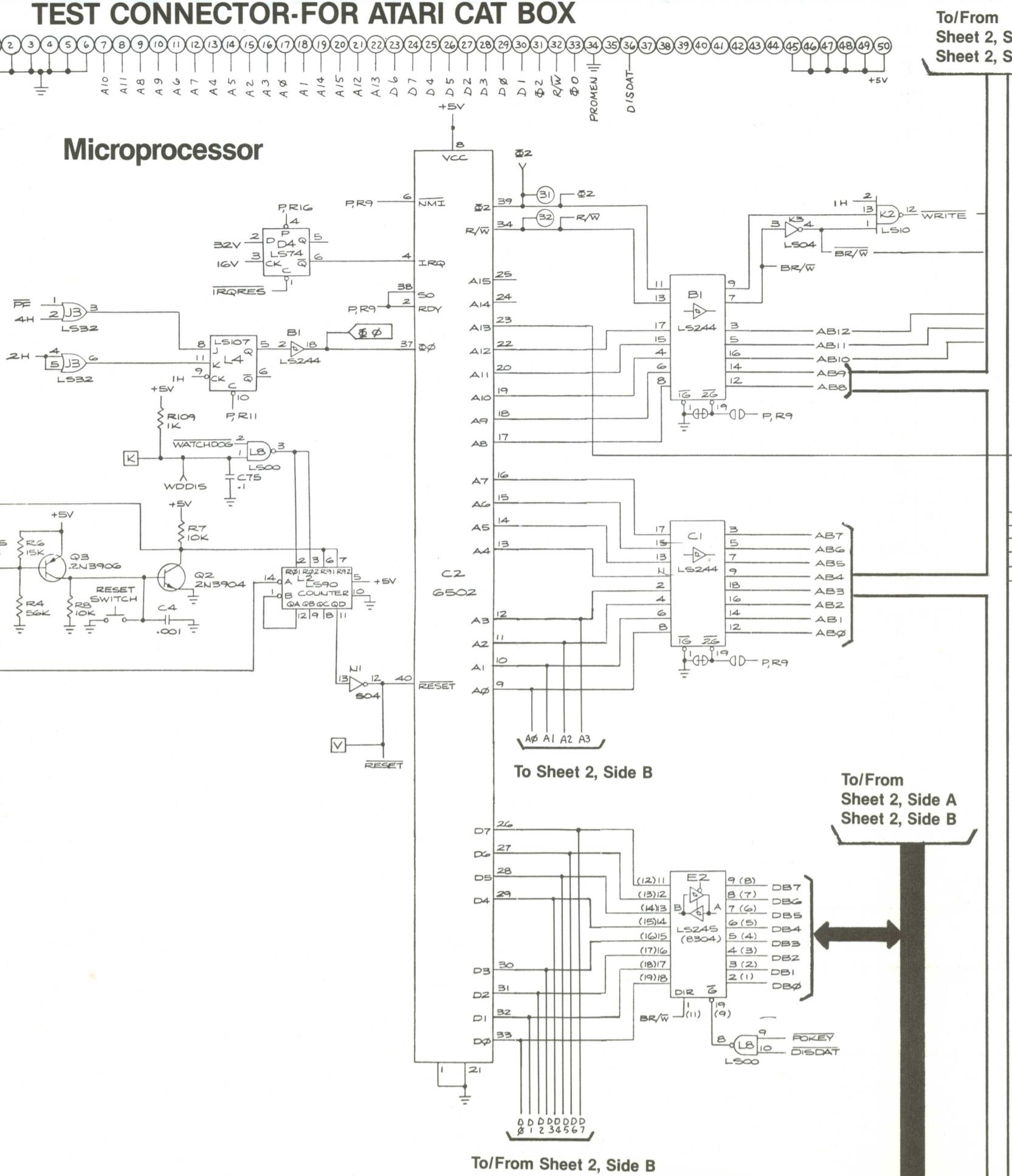


Testing the RAM

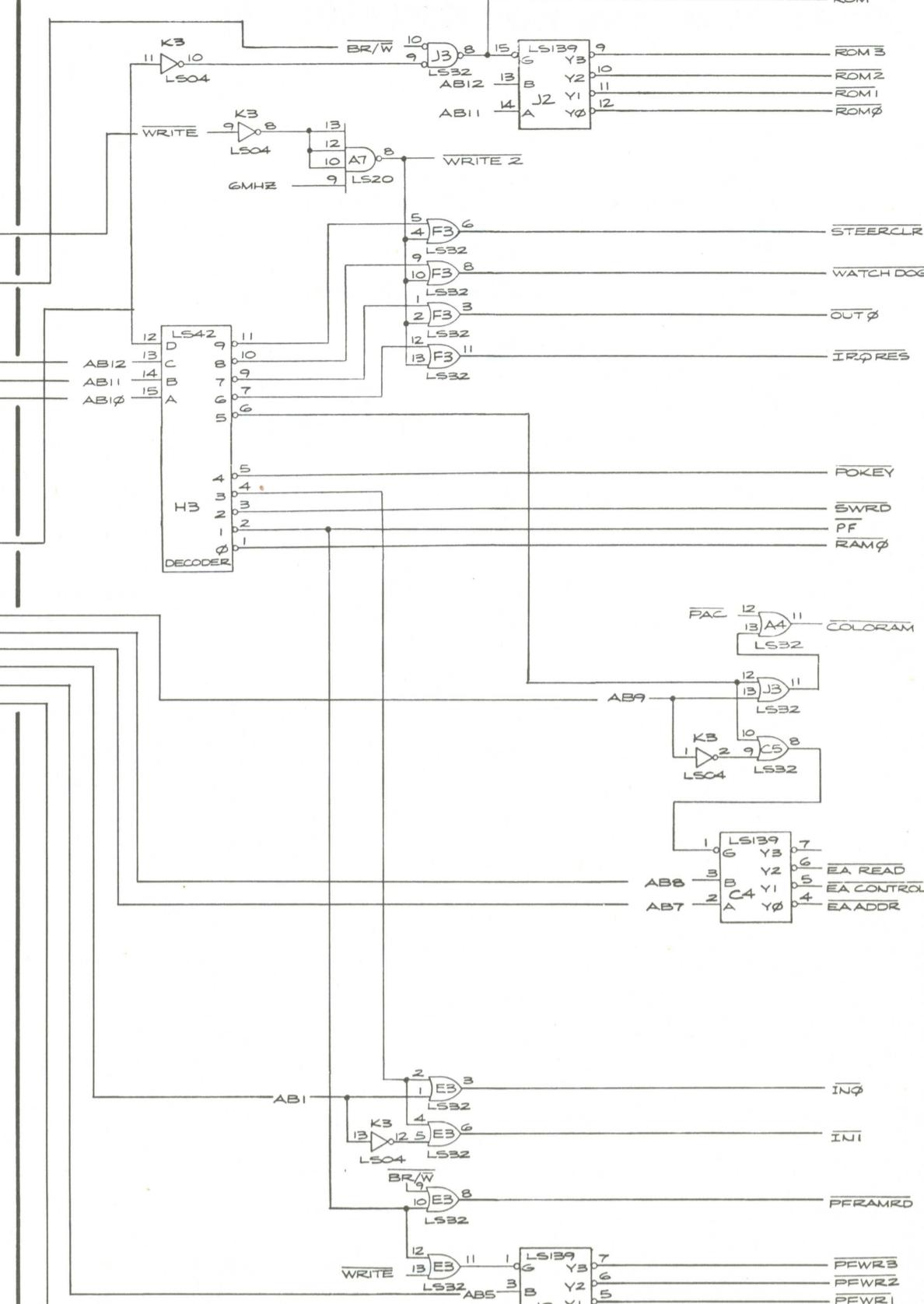
- Perform the CAT Box preliminary set-up.
- Set the CAT Box switches as follows:
 - Press TESTER RESET
 - DBUS SOURCE TO ADDR
 - BYTES to 1024
 - R/W MODE to (OFF)
 - R/W to WRITE
 - Key in 0000
 - Set R/W MODE to PULSE, then to OFF.
 - R/W to READ
 - Set R/W MODE to PULSE, then to OFF.
- If the CAT Box reads an address that doesn't compare, the COMPARE ERROR LED lights, the ADDRESS/SIGNATURE display shows the failing address location, and the ERROR DATA DISPLAY switch is enabled.
- If the COMPARE ERROR LED does not light, rekey 0000 and repeat the test with the DBUS SOURCE switch set to ADDRESS. This ensures that the data bits at address 0000 will go high. If the COMPARE ERROR LED does not light after this step, the RAM is good.



TEST CONNECTOR-FOR ATARI CAT BOX



Address Decoder



Memory Map

| MEMORY MAP | | | | | | | |
|----------------------|-----|----|----|----|----------------|-----------|---|
| HEXA-DECIMAL ADDRESS | R/W | D7 | D6 | D5 | D4 D3 D2 D1 D0 | FUNCTION | |
| 0000-03FF | | D | D | D | D | D D D D D | RAM |
| 0400-07BF | | D | D | D | D | D D D D D | Playfield RAM |
| 07C0-07CF | | D | D | D | D | D D D D D | Motion Object Picture |
| 07D0-07DF | | D | D | D | D | D D D D D | Motion Object Vert. |
| 07E0-07EF | | D | D | D | D | D D D D D | Motion Object Horiz. |
| 07F0-07FF | | D | D | D | D | D D D D D | Motion Object Color |
| 0800 | R | D | D | D | D | D D D D D | Option Switch 1 (0 = On) |
| 0801 | R | D | D | D | D | D D D D D | Option Switch 2 (0 = On) |
| 0C00 | R | D | D | D | D | D D D D D | Horizontal Mini-Trak Ball™ Inputs |
| 0C01 | R | R | D | D | D | D D D D D | VBlank (0 = VBlank) Self-test (0 = On) Cocktail Cabinet (1 = Cocktail) R, L, C Coin Switches (0 = On) SLAM (0 = On) |
| 0C02 | R | D | D | D | D | D D D D D | Vertical Mini-Trak Ball™ Inputs |
| 0C03 | R | D | D | D | D | D D D D D | Player 1 Joystick (R, L, Down, Up) Player 2 Start Switch (0 = On) Player 2 Start LED (0 = On) |
| 1000-100F | R/W | D | D | D | D | D D D D D | Custom Audio Chip |
| 1404 | W | D | D | D | D | D D D D D | Playfield Color RAM |
| 140C | W | D | D | D | D | D D D D D | Motion Object Color RAM |
| 1600 | W | D | D | D | D | D D D D D | EA ROM Address & Data Latch |
| 1680 | W | D | D | D | D | D D D D D | EA ROM Control Latch |
| 1700 | R | D | D | D | D | D D D D D | EA ROM Read Data |
| 1800 | W | | | | | | IRQ Acknowledge |
| 1C00 | W | D | | | | | Left Coin Counter (1 = On) |
| 1C01 | W | D | | | | | Center Coin Counter (1 = On) |
| 1C02 | W | D | | | | | Right Coin Counter (1 = On) |
| 1C03 | W | D | | | | | Player 1 Start LED (0 = On) |
| 1C04 | W | D | | | | | Player 2 Start LED (0 = On) |
| 1C07 | W | D | | | | | Trak Ball™ Flip Control (0 = Player 1) |
| 2000 | W | | | | | | WATCHDOG |
| 2400 | W | | | | | | Clear Mini-Trak Ball™ Counters |
| 2000-3FFF | R | | | | | | Program ROM |